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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/605,157	09/11/2003	Howard Andrew Gutowitz	EATO3741000	2156
93649	7590	11/15/2010		
Alan Cooper, PC P.O. Box 743933 Dallas, TX 75374			EXAMINER NGUYEN, TANH Q	
			ART UNIT 2182	PAPER NUMBER
			NOTIFICATION DATE 11/15/2010	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/605,157	GUTOWITZ, HOWARD ANDREW	
	<b>Examiner</b>	<b>Art Unit</b>	
	TANH Q. NGUYEN	2182	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 14 September 2010 (RCE).
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-25 and 28-31 is/are pending in the application.
- 4a) Of the above claim(s) 2,4-6,12,13,16 and 20-25 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3,7-11,14,15,17-19 and 28-31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 September 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                    | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on September 2, 2010 has been entered.

### ***Claim Objections***

2. Claim 1 is objected to because of the following informalities:

“more than one of pre-conversion symbols” in lines 5-6 of claim 1 should be replaced with --more than one of said pre-conversion symbols--

“at least one said pre-conversion symbol” in line 16 of claim 1 should be replaced with -- at least one of said pre-conversion symbols-- to be consistent with lines 5-6 of claim 1

“said input symbol-end symbol” in line 18 of claim 1 should be replaced with -- said each non-printable symbol-input-end ~~input symbol-end~~ symbol -- for consistency with line 14 of claim 1

“said at least one said pre-conversion symbols” in line 19 of claim 1 should be replaced with --said at least one of said pre-conversion symbols-- to be consistent with lines 5-6 and line 16 of claim 1

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“said non-conversion symbols” in line 19 of claim 1 should be replaced with --said non-conversion symbol-- to be consistent with “said non-conversion symbol” in lines 16-17 of claim 1

“triggered sequences of keystrokes” in line 27 of claim 1 should be replaced with --triggered sequences of keystrokes-- for consistency with “a set of trigger sequences of keystrokes” in line 27 of claim 1

“m pre-conversion symbol” in line 28 of claim 1 should be replaced with --m pre-conversion symbols-- to be consistent with “n post-conversion symbols” in line 29 of claim 1 because  $m \geq n$

“is” in line 4 of claim 30 should be replaced with --are-- for consistency

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1, 3, 7-11, 14-15, 17-19, 28-31 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites “wherein each trigger sequence of keystrokes” in line 31. The recitation suggests each trigger sequence of keystrokes being a trigger sequence of keystrokes of the set of trigger sequences of keystrokes. The specification suggests each triggered sequence of keystrokes of the triggered sequences of keystrokes of the set of trigger sequences of keystrokes. Clarification is required.

Claim 1 recites “a first part of each said trigger sequence of keystrokes that corresponds to said n post-conversion symbols” in lines 33-34 of claim 1. It is not clear what applicant intends to claim with the limitation. The specification suggests a first part of a trigger sequence of keystrokes comprising keystrokes that correspond to n post-conversion symbols. Clarification is required.

Claim 1 recites the limitation in lines 35-43 of claim 1. It is not clear what applicant intends to claim with the limitation. The specification suggests a second part of the trigger sequence of keystrokes including said keystroke, wherein said keystroke will convert sequence of keystrokes in said each of said triggered sequence of keystrokes into said n post-conversion symbols and at the same time display said n post-conversion symbols and a pre-conversion symbol corresponding to said keystroke. Clarification is required.

Claim 1 recites the limitation in lines 44-48 of claim 1. It is not clear what applicant intends to claim with the limitation. The specification suggests the pre-conversion symbol corresponding to said keystroke being not converted at the same time. Clarification is required.

Claim 30 recites the limitation in lines 2-5. It is not clear what applicant intends to claim with the limitation. It is not clear where a first plurality of said keys is being recited prior to this limitation. It is not clear where simultaneous generation of a printable symbol is being recited prior to this limitation. It is not clear what “a said printable symbol” means. It is not clear what “elements of said second plurality” refers to. It also appears that applicant claim the same trigger sequences, one trigger sequence with a

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key which generates the symbol-input-end symbol in claim 1, and another trigger sequence with a key which generates a symbol-input-end symbol with no simultaneous generation of a printable symbol. The examiner submits that the two trigger sequences are distinct from each other. Clarification is required.

Claim 31 recites the limitation in lines 2-5. In view of the limitation in claim 1, the recitation suggests a symbol-input-end symbol being generated with a trigger sequence suggested in claim 1, and in addition by a convert key and a send key. The examiner submits that the recitation fails to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Clarification is required.

5. The rejections that follow are based on the examiner's best interpretation of the claims.

### ***Claim Rejections - 35 USC § 102/103***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1, 7-11, 14, 18-19, 28-29 are rejected under 35 U.S.C. 102(b) as being anticipated by Balakrishnan et al. (US 5,952,942). Claims 3, 8-9, 14, 15, 17, 30-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Balakrishnan et al..

8. As per claim 1, Balakrishnan teaches a text-entry system (FIGs. 1-2) based on trigger sequences comprising

1) a plurality of keys (FIG. 1),

2) a plurality of printable symbols, said plurality of printable symbols comprising a set of pre-conversion symbols (symbols on keypad, FIG. 1), a set of post-conversion symbols (text in display 14, FIG. 1) and a set of non-conversion symbols (number, text that are not converted in display 14, FIG. 1),

such that at least one of said plurality of keys is assigned more than one of said pre-conversion symbols (FIG. 1) and

such that at least one fixed sequence of keystrokes (2255 (col. 4, lines 19-21)) corresponds to more than one sequence of said pre-conversion symbols (BALK BALL CALK CALL (col. 5, lines 3-5)),

each of said post-conversion symbols being set in a correspondence to a pre-conversion symbol (e.g. pre-conversion symbols CALL correspond to post-conversion symbols CALL),

wherein said set of pre-conversion symbols is disjoint from said set of post-conversion symbols such that no sequence of pre-conversion symbols is equal to any sequence of post conversion symbols (FIG. 7 shows pre-conversion symbols 500 being disjoint from post conversion symbols 504; note that the

description of FIG. 6-FIG. 8 suggests the entry in English corresponding to entry in Chinese (col. 8, line 24- col. 10, line 63), and that it is not essential that one of the plurality of keys (e.g. 0-9) is activated to select and enter one of a plurality of rank ordered candidate combinations – hence suggesting the steps in FIG. 5 being also applicable to Chinese entry),

3) a plurality of non-printable symbol-input-end symbols, each of which can be generated by a keystroke on at least one of said plurality of keys, the at least one of said plurality of keys including at least one key of said plurality of keys having either a pre-conversion symbol or a non-conversion symbol assigned to it, wherein said each symbol-input-end symbol is a non-printable symbol (col. 6, lines 43-50), and wherein said symbol-input-end symbol generated by said at least one key is always generated if one of said at least one said pre-conversion symbols or said non-conversion symbols assigned to said at least one key is displayed in response to the same keystroke which generates said symbol-input-end symbol (keystroke at 190 that is not on key 19 or on key 18 is the key that generates the symbol-input-end symbol at 197 – FIG. 5);

4) a display (14, FIG. 1) to display said plurality of printable symbols,

5) a first mechanism to display said plurality of printable symbols in response to keystrokes (13, 17 - FIG. 1), and

6) a second mechanism to recognize, upon generation of a symbol-input-end symbol of said plurality of said symbol-input-end-symbols, triggered sequences of keystrokes of a set of trigger sequences of keystrokes and thereby trigger conversion of m pre-conversion symbol displayed on said display to n post-conversion symbol



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(symbol-input-end is inputted in step 197, FIG. 5 to set a last word - hence triggering conversion of pre-conversion sequence in the display area 17 to post-conversion sequence in display area -5; 2255 followed by key 19 followed by a key that is neither key 19 or key 18 is an element of a set of trigger sequences of keystrokes (see 182-184-190-192-195-197, FIG. 5); step 193 FIG. 5 suggests other elements of the set of trigger sequences of keystrokes),

wherein m and n are integers,  $m \geq 1$ ,  $n \geq 1$ , and  $m \geq n$ ,

wherein each of said trigger sequences of keystrokes has two parts:

a first part comprising keystrokes that correspond to said n post-conversion symbols (all keystrokes prior to step 197, FIG. 5);

a second part including said keystroke (not Key 19 (step 192) nor Key 18 (step 195) – FIG. 5), wherein said keystroke converts said sequence of keystrokes in said each of said trigger sequences of keystrokes into said n post-conversion symbols and at the same time display said n post-conversion symbols and a pre-conversion symbol corresponding to said keystroke (step 197, FIG. 5), wherein said pre-conversion symbol corresponding to said keystroke is itself not converted at the same time (step 197, FIG. 5; col. 6, lines 43-48); and

wherein said pre-conversion symbol corresponding to said keystroke is itself not converted at the same time (at 197 - FIG. 5, the start of a new word is a pre-conversion symbol that has not been converted to a post-conversion symbol).

9. As per claim 3, the limitation suggests the printable symbols being japanese printable symbols, and it would have been obvious to one of ordinary skill in the art to

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practice the invention with japanese printable symbols – as the japanese printable symbols follow the chinese printable symbols and as Balakrishnan suggests practicing the invention with chinese printable symbols.

10. As per claim 7, Balakrishnan teaches converting a sequence of pre-conversion symbols to a post conversion symbol upon recognition of a trigger sequence by the second mechanism (see rejection of claim 1 above) – hence a third mechanism for such conversion.

11. As per claim 8, Balakrishnan does not teach the third mechanism being physically remote from the first mechanism. It was however recognized in the art that implementing two mechanisms separately is no more than an obvious variant of implementing two mechanisms together – hence the third mechanism being physically remote from the first mechanism being no more than an obvious variant of the implementation disclosed by Balakrishnan.

12. As per claim 9, Balakrishnan teaches the conversion being performed based on a context comprising other input symbols (31, 33, 34 – FIG. 2; col. 4, line 48-col. 5, line 5).

13. As per claim 10, Balakrishnan teaches a predictive text mechanism operating to select pre-conversion symbols for display based on a context comprising other input symbols (31, 33, 34 – FIG. 2; col. 4, line 48-col. 5, line 5).

14. As per claim 11, Balakrishnan teaches a Next key (key 19, FIG. 1) for incrementing symbols in an ordered list containing more than one element, the Next key being characterized in that a keystroke on the Next Key does not generate a symbol-

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input-end-symbol (col. 6, lines 30-38).

15. As per claim 14, Balakrishnan teaches a first Next key such that a keystroke on the first Next key advances the pre-conversion symbols in an order and does not generate a symbol-input-end-symbol (col. 6, lines 30-38). In addition, it was known in the art to incorporate a separate Next key such that a keystroke on the separate Next key advances non-conversion symbols in an order and does not generate a symbol-input-end-symbol in order to select a desired non-conversion symbol. It would have been obvious to one of ordinary skill in the art to incorporate a second Next key that is used for advancing non-conversion symbols and does not generate a symbol-input-end-symbol in order to select a desired non-conversion symbol.

16. As per claims 15, 17, the limitations are characteristic inherent with the japanese printable symbols (see the rejection of claim 3 above).

17. As per claim 18, Balakrishnan teaches a word-based predictive mechanism (col. 4, line 17-col. 5, line 5).

18. As per claim 19, Balakrishnan teaches a word-completion mechanism (col. 4, line 17-col. 5, line 5).

19. As per claims 28-29, see the rejections of claim 1 above.

20. As per claims 30-31, it was known in the art to use a convert key or a send key to generate a symbol-input-end symbol without displaying a further printable symbol. It would have been obvious to one of ordinary skill in the art to include a convert key and a send key in Balakrishnan in order to generate a symbol-input-end symbol without displaying a further printable symbol.

### ***Response to Arguments***

21. Applicant's arguments with respect to the elected claims have been considered but are moot in view of the new ground(s) of rejection, and/or not persuasive.

Applicant's arguments with respect to the recitation at lines 11-13 of claim 1 are moot in view of the new grounds of rejection.

Applicant's arguments with respect to the recitation at lines 18-21 of claim 1 are not persuasive because the examiner does not rely on the keys argued by applicant as the key that generates the symbol-input-end symbol. The examiner relies on the key at step 190 that is neither key 19 or key 18 as the key that generates the symbol-input-end symbol. The argument that there is no end-of-word mode in the invention of claim 1 is not persuasive because the claimed invention is not sufficient to preclude an end-of-word mode.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TANH Q. NGUYEN whose telephone number is (571)272-4154. The examiner can normally be reached on M-F (9:30AM-6:00PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, TARIQ HAFIZ can be reached on (571)272-6729. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

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Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/TANH Q. NGUYEN/  
Primary Examiner, Art Unit 2182

TQN: November 8, 2010